The experimental values $\left(\frac{d\rho}{dp}\right)_{exp.}$ agree very closely with those for $\left(\frac{d\rho}{dp}\right)_A$, the greatest deviation being 2.8 percent and the least 0.9 percent. On the other hand, the experimental values differ from $\left(\frac{d\rho}{dp}\right)_B$ by from 8.5 percent to 7.5 percent.

The Effect of Errors in Data

The following table shows the percent effect on the values at the heads of the columns caused by a one percent increase in the data shown in the first column:

	$\left(\frac{d\rho}{dp}\right)_A$	$\left(\frac{d\rho}{dp}\right)_B$	$\left(\frac{d\rho}{dp}\right)_{exp.}$
λ_1	0	0	+2
λ	0	0	—2
α	+1.04 to +0.96	+1.15 to +1.17	0
c_v	+0.013 to +0.010	+0.15 to +0.17	0
$-h$	+0.05 to +0.09	0	0

Thus, to bring the values $\left(\frac{d\rho}{dp}\right)_{exp.}$ down to the values $\left(\frac{d\rho}{dp}\right)_B$ there would have to be consistent errors of about +4 percent in λ, or —4 percent in λ_1 (or +2 percent in λ *and* —2 percent in λ_1). Chance errors in the measurement of wave length are much less than this (see values, page 449), and it is quite improbable that methodical errors would have opposite signs in λ and λ_1.

To bring the values $\left(\frac{d\rho}{dp}\right)_B$ up to the value $\left(\frac{d\rho}{dp}\right)_{exp.}$ an error of about +7 percent would be necessary in d, or an error of about +50 percent in c_v. Errors of these magnitudes are practically impossible in d, and very unlikely even in the case of the doubtful c_v.